



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,225	08/03/2006	Heinz Mueller	C 2858 PCT/US	3536
29737 7590 10/20/2008 SMITH MOORE LEATHERWOOD LLP P.O. BOX 21927 GREENSBORO, NC 27420				
EXAMINER				
ADMASU, ATNAF S				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
10/20/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

phil.mccann@smithmoorelaw.com
lorna.selvaggio@smithmoorelaw.com
mary.garner@smithmoorelaw.com

Office Action Summary

Application No.

10/566,225

Applicant(s)

MUELLER ET AL.

Examiner

ATNAF ADMASU

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 12-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date 1/27/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The inclusion of a term within parentheses renders the claim indefinite because it is unclear whether the indicated term is part of the claimed invention.

Claim Rejections - 35 USC § 102

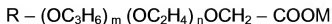
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 12 – 19 and 23 -30 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,582,138 (Balzer hereinafter).**

Regarding claims 12, 17, 18, 23, 24, 27 and 29, Balzer teaches emulsifiers and tensides, carboxymethylated oxethylates for oil recovery of the formula:



wherein R is a linear or branched aliphatic residue of 6-20 carbon atoms or an alkylaromatic residue of 3-18 carbon atoms in the alkyl group, or a dialkylaromatic residue of 1-18 carbon atoms per alkyl chain, the total number of carbon atoms in both alkyl chains being 5-30, or a trialkylaromatic residue of 1-18 carbon atoms per alkyl chain wherein the total number of carbon atoms in the three alkyl chains is 6-40, m is 0-20, n is 1-20, M is an alkali or alkaline earth metal ion or ammonium column 4, lines 33 – 45).

Regarding claims 13 - 15, Balzer teaches the emulsion comprising an oil phase, an aqueous phase, and a carboxymethylated oxethylate as the emulsifier (column 4, lines 8 – 9). The additives are water soluble co-surfactants such as mono- and polyhydric alcohols (column 4, lines 60 – 62).

Regarding claim 16, Balzer teaches the crude oil or the oil phase consists of paraffinic hydrocarbons (column 14, lines 43 – 45).

Regarding claims 19, 25, 26 and 28, Balzer teaches that the emulsifier concentration is 0.2 – 15% by weight based on the aqueous phase (column 8, lines 46 - 48).

Regarding claim 30, Balzer teaches the volume ratio of organic phase to aqueous phase in the emulsion is 3:1 to 1:10 (column 4, lines 55 – 56).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

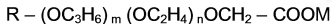
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 20 - 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,582,138 (Balzer hereinafter) in view of US Patent 5,869,434 (Mueller hereinafter).**

Balzer teaches emulsifiers and tensides, carboxymethylated oxethylates for oil recovery of the formula:



as detailed above.

Regarding claim 20, Balzer does not disclose expressly the composition additionally comprises free fatty acids.

Mueller teaches oil based invert drilling fluids uses ester oils of triglycerides of natural fatty acids (column 2, lines 50 – 52).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize the fatty acids of Mueller in the composition of Balzer. The rational to do so would have been the motivation provided by the teaching of Mueller that to do so would make the oil phase comprising of fatty acids non-polluting and ecologically safe hydrocarbon fraction (column 2, lines 46 – 49).

Regarding claim 21, Balzer does not disclose expressly the composition is flowable and pumpable at 5° to 20° C comprising a continuous oil phase in admixture with a quantity of a disperse aqueous phase which optionally contains at least one dissolved and/or dispersed auxiliary selected from the group consisting of thickeners, fluid loss additives, wetting agents, fine-particle weighting agents, salts, alkali reserves and biocides.

Mueller teaches a borehole servicing preparations, more particularly drilling fluids, that is flowable and pumpable at temperatures of 5° to 20° C based either on a continuous oil phase, optionally in admixture with a limited quantity of a disperse aqueous phase (w/o invert type), or an o/w emulsion with a disperse oil phase in the continuous aqueous phase, these preparations optionally containing typical dissolved and/or dispersed auxiliaries, such as viscosifiers, emulsifiers, fluid loss additives,

wetting agents, fine-particle weighting agents, salts, alkali reserves and/or biocides.
(column 4, line 66 – column 5, line 9).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the ether carboxylic acid of Balzer in the drilling fluid of Mueller. The rationale to do so would have been the motivation provided by the teaching of Mueller that to do so would predictably improve the performance properties and ecological compatibility, particularly in the form of anaerobic degradability (column 4, lines 12 - 16).

Since Balzer and Mueller combine to teach the same composition as claimed, one of ordinary skill in the art at the time the invention was made would have expected that the well servicing fluid containing ether carboxylic acid of the Balzer/Mueller composition would be the same as claimed.

Regarding claim 22, Balzer does not disclose the composition's oil phase comprise at least one member selected from the group consisting of carboxylic acid esters, linear or branched olefins containing 8 to 30 carbon atoms, water-insoluble, ethers of monohydric alcohols, water-insoluble alcohols, carbonic acid diesters, paraffins and acetals.

Mueller teaches the mineral oil fractions are replaced by oleophilic carboxylic acid esters, at least water-insoluble alcohols, corresponding ethers and selected carbonic acid esters (column 2, line 62 – column 3, line 3).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace oil phase fraction in the drilling fluid of Mueller. The rationale to do so would have been the motivation provided by the teaching of Mueller that to do so would make the oil phase ecologically safe and readily degradable (column 2, lines 62 – 65).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATNAF ADMASU whose telephone number is (571)270-5465. The examiner can normally be reached on M-F 8:00-5:30, Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/566,225
Art Unit: 1796

Page 8

/ASA/

/Timothy J. Kugel/
Patent Examiner, AU 1796